SPECIAL AIRWORTHINESS INFORMATION BULLETIN

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http://www.faa.gov/aircraft/safety/alerts/SAIB

This is information only. Recommendations aren't mandatory.

Introduction

This Special Airworthiness Information Bulletin (SAIB) alerts Principal Maintenance Inspectors in FAA's FSDOs, and you, owners, operators, and repair facilities **of aircraft engines using flexible lines and hoses that carry flammable fluid** of the importance of proper handling of those flexible lines and hoses. This SAIB also advises you to caution maintenance personnel against overbending of those flexible lines and hoses and to treat them as hard lines. In addition, this SAIB advises you to inspect flexible lines and hoses that carry flammable fluids for kinks. An engine fire can occur if flexible lines or hoses that carry flammable fluid fail due to overbending or kinking.

Background

Investigation of a fire in a Pratt & Whitney (P&W) PW4062 engine revealed a leak in the Turbine Case Cooling (TCC) air valve actuator fuel pressure line, CP11. Maintenance records show the engine was overhauled recently during which time the CP11 line would have been removed from the engine and visually inspected in accordance with the P&W engine manual. The records also indicate that the TCC actuator was changed twice during the overhaul. When the actuator was removed and replaced, it is assumed that the CP11 line was moved out of the way to make clearance for the actuator.

Metallurgical examination of the CP11 line showed the line ruptured in an area of broken wires in the braid directly adjacent to a kink in the line. The CP11 line is identified by a metal band wrapped around the outside of the external fire sleeve. This metal band, acting like a hinge when the flexible line is bent, is believed to have caused the kink in the CP11 line. The investigation noted the rupture in the CP11 line was adjacent to the identification band.

Recommendations

We recommend you caution maintenance personnel against overbending of those flexible lines and hoses and to treat them as hard lines. We also recommend that you inspect flexible lines and hoses that carry flammable fluids for kinks.

For Further Information Contact

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